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Industry Specific Sustainability Benchmarks: An ECSF Pilot Bridging Corporate Sustainability with Social Responsible Investments

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ABSTRACT. This paper investigates the state of the art with respect to sustainability reporting, its linkages with the corporations, internal measurement and monitoring systems and their combined impact on the quality of contemporary sustainability benchmarks, developed by SRI analysts and so-called rating and screening agencies. This research originated from the EU-funded research initiative to create a new generation management framework for corporate sustainability and responsibility (CS-R). The aim of it is to develop a coherent set of assessment –, measurement – and monitoring tools. The sustainability benchmark tool should align the interests of corporations implementing CS-R and various organizations supporting SRI, such as fund managers, analysts and screening agencies. This paper show the essentials features of an actual sustainability benchmark which is currently under construction. This approach will have significance impact on the further development of SRI and CS-R practices, as well as support the development of sustainability reporting standards.

KEY WORDS: sustainability benchmark, sustainability reporting, internal measurement, assessment, monitoring systems, sustainability benchmarks, SRI, CS-R

ABBREVIATIONS: CSR – corporate social responsibility; CS-R – corporate sustainability and corporate responsibility; EU – European Union; ECSF – European corporate sustainability framework; NGO – non-governmental organization; UN – United Nations

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Introduction

> "The escalating demands for information on environmental and social business risks form analysts, rating groups, benchmark organizations and advocacy groups show no sign of abating. Business must choose whether to lead on reporting, or be led. …non-financial reporting can be a powerful management tool. As it has evolved, financial reporting can tell executives a great deal about past performance, but it is unable to reveal fully a company's intangible assets or the various risks and opportunities it faces in the market environment in which it operates."
>
> M. Moody-Stuart, January 2003[1]

Companies today have good reason to feel overwhelmed by the number and variety of approaches to Corporate Sustainability (CS), and to its sister concepts. Global standards such as the UN Global Compact (1999), SA 8000 and the Global Reporting Initiative (GRI: 2002, revised) each have their own spin on accountability, business conduct, corporate governance, community involvement, human rights, and environmental responsibility. With few convergence among these international initiatives, referring concept and content of CS and Corporate Responsibility (CR), companies are left confused

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with respect to determining their own approach to these notions. It is no wonder that CS-R is regarded as adding complexity and costs in an economic environment that can ill-afford them. Corporations, governments, non-governmental organizations (NGO's), rating organizations and investors are all looking in their own appropriate ways to contribute to sustainability. Not all companies know how to define sustainability, measure and report the results or even act on sustainability issues. Nevertheless, a growing number of companies have been publishing sustainability reports or publicly disclosed information on environmental, social and/ or ethical aspects of their business operations. A still growing number of these companies thereby use standards such as the GRI, some of which are audited by third parties.

In over a 30 countries around the world, so-called SRI rating agencies use these sustainability reports in their (comparative) analyses of the sustainability performance of listed companies. These rating and screening agencies are abandoning the practice of screening out *sin* stocks in favor of assessing companies using best practice benchmarks by sector. The rating agencies use these benchmarks to give companies a 'sustainability score', which is then provided to companies, sometimes 'spelled' by pressure groups or sold to fund managers looking for additional information to determine stock performance. Company managers need adequate monitoring tools to match their ambitions regarding CS and CR. In addition to internal measurement instruments, corporations like to benchmark their sustainability performance with their peers. In order to compare performance between companies in a similar sector, industry specific benchmark formats have to be developed. Stakeholders and corporate needs for specific CS information can be matched by first analyzing current corporate reporting practises and rating practises, and second apply a new more adequate approach to sustainability benchmarking.

This paper investigates the trends in current reporting practices and analyses how screening agencies make use of them. As there is room for improvement, as this paper will show, a new approach to sustainability benchmarking is introduced, based on the principles of the European Corporate Sustainability Framework (ECSF). In the final part of this paper the features of a new generation, industry and context specific, benchmark format will be presented. It will reveal new benefits to both corporations and SRI rating agencies.

Methodology

The benchmark CS-R/SRI within the ECSF program (Van Marrewijk and Hardjono, 2003) has been developed for a systematic analyses of the indicators used in reporting and rating practices and will be used here to make a descriptive study regarding the areas covered and types of indicators used in sustainability rating and reporting. According to the ECSF consortium, the generic definition of both CS and CR is the inclusion of social and environmental concerns into corporate decision-making and business operations as well as in their interactions with stakeholders. In practice, responsibility (CR) is 'Communion'-oriented and therefore relates to phenomena such as transparency, stakeholder dialogue and sustainability reporting, while sustainability (CS) emphasize the 'Agency' principle, which cause organizations to focus on value creation, environmental management, environmentally friendly production systems, human capital management and so forth (van Marrewijk, 2003). In trying to cope with various CS/CR challenges, organizations develop new business strategies which reflect a variety of business contexts (value systems) and situations (strategic orientations). Each context/situation provides a specific meaning to CS/CR or CS-R. Therefore ECSF abandons a 'one solution fits all' definition for CS and CR, accepting more specific definitions matching the development, awareness and ambition levels of organizations (van Marrewijk, 2003). In this article, four business contexts, and thus four different interpretations of CS/CR are important:

- *Compliance-driven* CS-R: regulation and obligation decide on correct behavior;
- *Profit-driven* CS-R: social and ecological initiatives have to contribute to the financial bottom line;
- *Community-driven* CS-R: to find – in a process of stakeholder engagement – a balance between economic, social and ecological concerns, which are all important in themselves; and

- *Synergy-driven* CS-R: actions creating value in the economic, social and ecological realms of corporate performance in a win-together approach with stakeholders.

The ECSF approach, because of its phase-wise orientation towards development, is able to reveal various elaborate levels of awareness, ambitions and institutional development. The ECSF research provided several new ways to assess (aspects of) corporate performances, especially with respect to their performances regarding CS-R. The various ways of assessing all contribute in deepening the understanding of basic aspects at hand, in stead of comparing rather symptomatic manifestations. The enhanced comparability is an advantage to the company itself. First of all, the company is able to measure whether it sufficiently improved its responsibility compared with earlier periods. Second, the company and others can compare its score with the score of other companies, especially with the score of competitors. We call this external benchmarking.

A companies' sustainability can be compared against its peer using a set of indicators or performance measures. Any single indicator taken for a benchmark is almost meaningless for assessing sustainability. The context chosen behind sustainability is that it requires a system approach. For example, companies that take great care of customers and employees but continue to dump toxic wastes are missing the point. From this we can conclude that a responsive approach for comparing reporting and rating on sustainability is needed. In the ECSF framework a benchmark tool should complement the Management Information Systems (MIS) and the Responsive Business Scorecard (RBS).

In the analyses (van der Woerd and van der Brink, 2004) of the RBS they concluded that the traditional Balanced Scorecard typically fits with *profit-driven CS-R* (van Marrewijk and Werre, 2003). A Responsible Scorecard includes People and Planet topics. It was concluded that it is difficult to find this space in the existing Scorecard format (Kaplan, 1996). Therefore, van der Woerd and van den Brink concluded that a *Community/caring* CS-R demands a new format. In the development of a RBS format, one additional Perspective with a reshuffling of the four existing perspectives was added to the traditional scorecard. The format starts with four dominant stakeholder groups: Financial, Market partners, Employees and Society & Planet (van Marrewijk, 2003). Each stakeholder group is in interaction with a fifth entity, the organization itself. The box in the middle – Performance & Improvement – functions as an anchor point linking demands of several stakeholder groups with business performance. Performance and improvement areas can also be found by comparing companies against its peer, hence the target of our benchmark tool. The schematic development of the benchmark within the ECSF framework is visualized below (Figure 1).

The MIS supports both the Scorecard and the Benchmark. A Benchmark is always a servant to, therefore derived from, business strategies and core indicators between companies. As such, the instrument also offers input to developing a MIS. Where the Scorecard offers core indicators for companies, the Benchmark offers sector specific indicators and comparisons. A successful Benchmark typically combines information from individual companies (bottom-up) and from generic benchmark systems like GRI and SA 8000 (top-down). If based on bottom-up information only, there is risks of blind

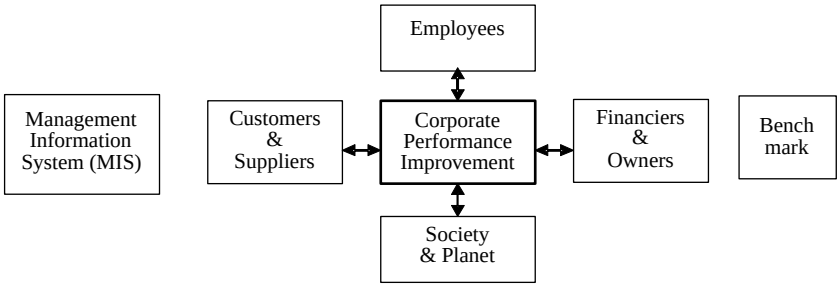

Figure 1. The schematic development of sustainability benchmark.

spots, if based on top-down information only, superfluous, overly detailed, indicators will hamper acceptance. Hence, in this article we will come up with key characteristics for indicators that best portray sustainability benchmarks. MIS, Scorecard and Benchmark overlap, but are not necessarily similar.

The scope of the research

We first review the developments and standards of reporting practices for CS. From there our analyses focus on the main characteristics of how reporting practices can be used to develop indicators that suit the development of a benchmark model (section-current state of sustainability reporting). For example, rather than measuring or pointing to absolute levels of emissions or waste in scientific terms (for example, NOx emissions), the question is phrased in performance terms relative to peers and assessed in terms of comparable data. In Section: ''The quality of rating and screening services''. of our analyses focuses on specialized SRI research organizations that use benchmark models for rating purposes. Benchmarking by external parties such as rating agencies guarantees a more objective view that presentation of CS-R policies by the company. Since rating agencies use different criteria and evaluation models (van den Brink, 2002) we developed criteria to determine what constitutes best practices in the SRI research process and reviewed current practices and identifying organizations displaying benchmarking research on companies. In section ''Developing a framework for bench marking'' we develop a new benchmarking framework that partly is derived from our analyses of reporting practices and standards and rating practices. In addition, we offer companies input in the MIS and the RBS.

Current state of sustainability reporting

Introduction

Since the first public environmental reports were published over fifteen years ago many companies, particularly those with well-known brand names, have felt increasingly obliged to report externally on their environmental performance. Although the publication of environmental information originally began in sectors with (perceived) significant environmental impacts, this practice has gradually spread to sectors and companies where the environmental impacts are less visible and less vulnerable to social pressure.

Nowadays, the position of companies in society has changed dramatically compared to the 1990s. Companies are not only expected to operate in a responsible manner, but are increasingly asked to demonstrate this publicly. This is particularly true when environmental, social and ethical issues fuelled public awareness and concern. In addition to traditional owners i.e. shareholders, new groups, both internal and external to the organization, expressed their growing interest in the business practices and their outcomes. These stakeholders, such as employees, management, banks and insurers, customers and suppliers on the one hand, and local communities, interests groups as well as the general public on the other hand, have different and sometimes conflicting interests. The response of companies has been to extend public reporting to non-financial information, initially in the field of environment and, more recently, to social and ethical issues.

Once companies see their competitors producing sustainability reports the pressure increases for them to report as well. Other factors influencing sustainability reporting include the developments in communication over the last 20 years which mean that major companies can suddenly be placed 'in the spotlight' if environmental and social incidents take place or reputation is at stake. Undoubtedly, recent corporate scandals and related quests for good corporate governance pushed transparent reporting even more to higher on corporate agenda's. A growing number of companies now recognize the need for a proactive approach to environmental and social risk management and wish to demonstrate this to the relevant stakeholder groups. All these reports do not only show that companies, especially listed companies on stock markets, use environmental and social aspects to demonstrate internal and external stakeholders that different 'responsibilities' of a companies' behavior – so not directly to financial performance – is part of their business. As such, the reporting practice demonstrates this.

As there is no official registration of corporate responsibility reports, though some countries re-

cently developed regulations to do so, we reviewed a number of surveys that have been carried out on companies' sustainability reporting[2]. This section focuses on the practices and architecture of sustainability reporting. To gain a better understanding of the metrics used in corporate reporting and its use for benchmarking, the section examines two issues. First, we identify the types of reporting used in recent reports. Next we briefly analyze reporting standards for corporate sustainability and developments in assurance practices.

Key highlights of corporate reporting practices

Currently some 1500 companies world wide report on environmental, social or sustainability issues. The surveys identified in 2003 marked geographical differences in approaches to reporting that cut across sector boundaries. About 62% of all non-reporting companies are domiciled in the US. European companies account for 36% of the total number of companies, 69% of which publish a global environmental or social report. European companies display the greatest level of social and environmental or sustainability reporting. About 70% of Asian companies publish a global environmental or social report. Japanese companies are traditionally strong environmental reporters. Despite these trends, three of the top ten reporting companies are domiciled in the US. The most notable areas of increased reporting have been in the social categories. About 25% of the reporting companies now produce integrated global social and environmental reports as opposed to 23% producing purely environmental global reports. CS-R Europe measured a considerable interest in stakeholder engagement activities with 32% of companies reporting on a stakeholder engagement process. But many reporters still view stakeholder engagement as an end in itself rather than a means of obtaining perspectives and ideas that will be used to shape their business. With respect to subjects reported 26% of companies now report their position with regard to human rights and labor practices. Health and safety reporting has risen from 39% of all reporters (17% of the total 100 companies) in 2000, to 48% of all reporters in 2003. Companies are increasingly addressing wider global issues that relate to their industry. Almost 49% of companies reported on the sustainability of their product or service in 2003. Only few industry sectors have a bearing on approaches to reporting.

Management standards

External reporting by companies has a variety of functions. The most obvious is to inform stakeholders whose decisions are predicated on some understanding of the operations and status of the organization. Other possible functions of external reports include legitimating, reputation enhancement, marketing (Marshall, 2003) and internal communication. The various social and environmental (management) standards that currently exist, relate closely to the concepts and disciplines from quality management. These include the European Eco-Management and Audit Scheme (EMAS); the international standard for environmental management (ISO14001); the Social Accountability standard (SA8000) and Investors in People (IiP). In addition, many companies apply performance assessment and measuring tools such as the EFQM model for Business Excellence and the Balanced Business Scorecard, however, it is rare to find all these aspects of the continuous improvement models coordinated within a single integrated approach, or linked to any formal external reporting mechanism.

From the standards, the GRI is emerging to a prominent position for companies and for financial markets. As the GRI reports in some of its papers: ''A major goal of the Global Reporting Initiative is to improve comparability between reporting organizations and thus bring sustainability reporting much of the technical strengths that underpins the legitimacy (and credibility) of financial reporting'' (GRI, 2001). Currently, over 400 companies worldwide use GRI as the standard for sustainability reporting. As a sustainability-reporting standard, the GRI has produced multi-stakeholders guidelines for sustainability reporting which encompass the triple bottom line of environmental, social and economic accountability. Their guidelines set out a framework for reporting that includes fairly prescriptive guidance on the use of specific performance indicators. By fostering the standardization of social and environmental reporting, the GRI directly contributes to the comparability and transparency of the CS-R

efforts of companies. For benchmark purpose, the GRI researches which are good indicators and which are not. However, a major constraint of GRI is that sector specific indicators are not (yet) developed and weighting indicators is not available.

Reporting and assurance

Reporting standards provide a basis for independent third parties to verify, or assure, sustainability reporting. However, do reports and their equivalents in assurance focus on performance or processes and indeed make them suitable for benchmarking against its peers? A research gap can be discerned between the theories and the practitioners in the field of research of social and environmental reporting. The first group can be found in the accounting literature, the second in the different standards currently applied. In particular, research is still limited about how management control systems are designed and what their effects are at the operational level (Perego, 2003). Input from theorists, especially accounting literature, is of great interest to the practitioners, being corporate rating agencies. For purpose of this study on CS benchmarks we will first briefly analyze various management standards and current reporting standards. Ideally, a common approach has to be developed providing consistency of analysis between companies reporting and its use for rating purposes. Some of these quality standards require independent certification as a mark of assurance to outsiders, or include an element of stakeholder involvement.[3] Others support more sophisticated systems of accounting and auditing.

GRI and AA1000 provide a set of tools to help organizations manage, measure and communicate their overall sustainability performance: social, environmental and economic. Together, they draw on a wide range of stakeholders and interests to increase the legitimacy of decision-making and improve performance. The AA1000 standards operate as a process quality standard for continuously improving the management of such interlinked processes as the formulation of policy, stakeholder consultation and internal auditing. It consolidates the core aspects of specialized standards such as GRI, IiP and SA8000 into a generalized process model for social and ethical accounting, auditing and reporting. While GRI provides globally applicable guidelines for reporting on sustainable development that stresses stakeholder engagement in both its development and content, AA1000 provides a process of stakeholder engagement in support of sustainable development. The AA1000s Assurance Standard complements the GRI by providing a basis for independent third parties to verify, or assure, sustainability reporting. The individual process standard links an organization's values to the development of performance targets and to the assessment and communication of that performance as it relates to systems, behavior and impacts. More importantly, the standard is used to a limited extent and haphazardly referred to by rating agencies and hence for benchmark purposes.GRI structures performance indicators according to a hierarchy of category, aspect and indicator. Indicators are grouped in terms of the three dimensions of sustainability – economic, environmental and social (Table I). GRI performance indicators provide information of reporters and enhance comparability between reports and reporting organizations and …links 'concerns' of report users. GRI indicates that the framework might change over time as the field of performance measurement continues to evolve (..) and stakeholder interest is the key determinant to sustainability reports (GRI, 2002, p. 80). So, while reporters and report users are the main target groups, further development of performance measurements depends on – or is limited to – input of a wider group of stakeholders. As such, GRI provides input for benchmark purposes.

The current categorization of GRI into 'core' and 'additional' indicators is difficult to apply in practice – GRI do not facilitate communication of sustainability performance or aid companies in changing course towards sustainability. Currently, the indicators show some inconsistencies, which need to be tackled to ensure the effective use of the indicators. For benchmark purposes GRI guidelines are very complicated. In the following sections we briefly discuss these limitations.

Connecting reporting to stakeholder dialogue

From ECSF perspective we concluded that indicator selection should be more clearly linked to internal

TABLE I
Overview of GRI reporting issues for corporate responsibility

Category	Aspect
Economic	
Direct economics impacts	Customers Suppliers Employees Providers of capital Public sector
Environmental	Materials Energy Water Biodiversity Emissions, effluents, and waste Suppliers Products and services Compliance Transport Overall
Social	
Labour practices and decent work	Employment Labour management relations Health and safety Training and education Diversity and opportunity
Human rights	Strategy and management Non-discrimination Freedom of association and collective bargaining Child labour Forced and compulsory labour Disciplinary practices Security practices Indigenous rights
Society	Community Bribery and corruption Political contributions Competition and pricing
Product responsibility	Customer health and safety Products and services Advertising Respect for privacy

and external stakeholder dialogue. Core indicators show targets, not procedures and organizational instruments. Reporting guidelines should guide organizations on how to report the outcomes of stakeholder dialogue and the process used for the selection of reported indicators. The stakeholder dialogue process itself should also be reported. This is to ensure completeness and relevance on how the reporting entity should identify and report on *material industry or context specific issues* not prescribed in the GRI list of indicators.

Linking reporting to business objectives, strategy and value

Company's reporting efforts should be linked with its business objectives and strategy and decision-making. However, this link should be made stronger by allowing the omission to report on core indicators that do not impact on business objectives, or that are associated with issues that are identified as a low priority by stakeholders. More guidance should be provided on the process of how the included indicators have been selected. At present, we consider the Guidelines include too many and too detailed indicators. This makes reporting more time-consuming instead of facilitating the integration of sustainability reporting into general business performance reporting.

Integrating economic impacts into social and environmental indicators

GRI appears to be diverging from the direction that reporting is evolving in practice.[4] Reporting frameworks are increasingly aiming towards fuller integration of the company's financial, economic, social and environmental reporting. There are evolving legislative reporting and disclosure drivers, which the Guidelines do not currently appear to take account of. The present Guidelines do not consider these approaches and may therefore not attract appropriate attention of, for example, the investment community. The proposed separate set of economic indicators seems to increase the gap between financial and social and/or environmental reporting further. Economic indicators are a means of expressing environmental and social effects in financial terms, and should therefore be considered in conjunction with more conventional financial indicators and relevant environmental and social performance indicators.

Conclusion

For benchmark purposes valuable contributions are offered from emerging reporting and assurance guidelines such as GRI and AA1000. But the standards are not precise enough. Both defined their own formats for CS. The standards described above also have their limitations, primarily because they are process standard and as such do not focus on performances, which are a key to benchmarking analyses. A number of companies do apply performance measurement systems which track non-financial social issues such as employee development or customer satisfaction. These practices have three major drawbacks. First, these indicators are largely used as internal performance tools, for example in a Business Balanced Scorecard or MIS, rather than as a means of satisfying external financial market concerns or building stronger relationships with stakeholders. Second, reporting standards define some minimum information levels and principles but are not well aligned with different industry sectors. Third, insufficient assurance instruments are offered for the quality of indicators.

Therefore, the need for key performance indicators closely linked to aspects of both CS and CR is paramount. For managing business operations and the company's stakeholder relationships and for measuring their impact on the overall corporate performance, corporations need a new coherent management and reporting approach, linking internal needs with respect to CS as well as fulfilling its obligation toward the various stakeholder groups. Our definition for indicators for a sustainability benchmark is:

> An indicators in a benchmark should be sector specific, align business goals, be compatible with financial accounting criteria to the extent possible, quantifiable where possible, meaningful to both the reporting company and its stakeholders and sufficient precise to allow assessment of the company's performance.

Our analyses for benchmark purposes show that GRI guidelines fall short to comply with this definition. In spite of the growing influence of reporting standards GRI does not link *reporting* with *business objectives* and *strategy* and decision-making. Another key challenge for GRI is the linkages with the economic dimension and the integration of such different *types of information* into management accounting and decision-making. The stakeholder dimension is clearly developed in GRI, however, relevance of stakeholder' contribution to *quantifiable* and meaningful indicators is not specified or is at least *not context specific.*

In summary, GRI clearly offers good opportunities for companies to compare with its peers. The main challenges for GRI guidelines lie with sector specific and business driven performance, as we will see in benchmarking sustainability performance. In a later section of this article (section developing a frame work for benchmarking) the question therefore will be addressed, to what extent do current reporting standards offer guidelines to establish the desired alignment between internal and external needs of companies. In the following section we elaborate the practices of screening and rating agencies in drafting sustainability benchmarks.

The quality of rating and screening services

Assessments of company's sustainability by rating agencies define a globally uniform benchmark, and therefore are attractive as a reference for international companies and financial markets to cope with risks and opportunities. The question arising from this observation with relation to sustainability issues are how are rating agencies evaluating the non-financial side of risk, and given the rapidly changing nature of material business risk, how should non-financial risk be assessed in the future by rating agencies. The importance here is that of time horizons and sector specific relevance of risks. If risks are long term, they generally do not tend to be fractured into mainstream ratings that assess default risks over a limited time and short-term performance (UNEP Finance Initiative, 2003, p. 1). It should be made clear the issue that non-financial risk should only be assessed when the business case is satisfied and can be qualified as material to the companies default risk or market performance. For instance, mainstream agencies will look at a company's exposure to legal liability and reputation damage. For risks to become relevant in mainstream ratings, the case must be built

that non-financial risks are in fact material to business.

The questions rating agencies are asking are the following:

- Is the company's social and environmental performance better (or worse) than that of its peers; that is, compared to the rest of the industry?
- In the perspective of stakeholder groups, does the company make sense of sustainability issues?

And these questions, in turn, raise classical management issue:

- What strategic architecture is called forth by the benchmarks?
- What organizational culture and mindset are needed?
- What is the linkage between benchmark performance and financial results?

Specialized research organizations – rating agencies – have been pivotal in building up the SRI market in the past 20 years. They have developed the intellectual framework, the tools and the communication strategies that form the basis on which the whole SRI industry rests. Today, the specialized research houses provide the second largest share of research needed by the SRI industry,[5] and represent a key sector in further developing the concept of corporate social responsibility (CSR). The role of these agencies in the CS debate cannot be underestimated. This process is illustrated by a recent survey of mainstream European fund managers and analysts by CSR Europe, Deloitte and Euronext. About 79% of respondents supported the view that social and environmental risk management has a positive impact on a company's long term market value. About 52% of respondents believe that social and environmental considerations will become a significant aspect of mainstream investment decisions in the next two years. The general task of these screening agencies is to ascertain whether companies are operating to the detriment of their stakeholders, either now or involving future generations. With the growing number and size of ethical/ environmental investment funds, screening agencies meet an increasing need for their comparative data. The (as yet) undiscovered potential of these benchmarks lies in their application as a management tool to better measure and manage corporate responsibility.

The quality of rating and screening sustainability

We reviewed 28 rating agencies worldwide (van den Brink, 2002) and their screening and rating methodologies. In this section on SRI research, we take a more in-depth look at the entire research process in order to gain a guided insight to generate a better understanding of best practices for benchmarking CS-R and SRI. We reviewed SRI Research organisations, on the following criteria:

- Researchers background and organization
- Capacity and resources
- Researchers methodologies for collecting information and making analyses
- Criteria used
- Rating and evaluating processes applied
- Monitoring and verification procedures

In the former section we defined a benchmark assessment of company's performance to be best class if it is compatible with financial accounting criteria to the extent possible, *quantifiable* where possible a *meaningful* to both the reporting company and its stakeholders. Obviously, rating practises have different purposes than reporting, such as serving stakeholders' actions or serving financial products. However, both practises benchmark CS. Do rating research methodologies identify material and transparent sustainability impact and risks of companies? [6] The following section summarizes some key findings of our review of rating agencies for benchmark purposes.

Analysts response to outcomes sustainability reporting

Although pleased with the growing number of corporations, which publicly disclose increasing number of information on sustainability performance, screening and rating agencies do not always rely on the information actually available. For example, GRI guidelines covers already more than 85% of the issues mentioned in the various ques-

tionnaires of sustainability rating agencies (de Hoo, 2002, p. 18). Despite this, GRI rating agencies hardly apply the standards directly for their purposes. Publicly listed corporations are annoyed by the number of questionnaires they have to fill out, as SRI analysts apply different questionnaires to generate the data to their benchmark analyses. Second, some questions are industry specific and others not and worse, they do not have any data on them. Due to the lack of convergence between the questionnaires, companies are left confused with respect to what analysts specifically need.

Moreover, performance evaluation systems show a large diversity with regard to the specific indicators used to measure performance, the method of data collection and the sources and origin of the information. The questionnaires of rating organisations are still the 'fingerprints' of their methodologies. Some rating agencies claim that the questionnaires are no longer the prevailed methodologies because of its inherent limitations. Therefore, a growing number of rating organisations apply more external sources for investigations in addition to specific questions or lists of questions and a stakeholder approach for building performance indexes.

Another highly debated issue in rating – and relevant for our benchmark purposes is stakeholder relevance or accountability. Rating agencies put very different attention to stakeholder research, although 'no specific theory logic has been identified which explains the relationships between stakeholders and the firm' (Key, 2001). As *meaningful* to both reporters and stakeholders, benchmarking has become important for many purposes, especially comparisons between companies that have become paramount. Since various agencies claim that ''(stakeholders) can have a consultative nature or a (co) decisive nature'' (Quality Standard QSS 01, 2003) for company research purposes, they hardly offer conclusive definitions for research input. *Transparency* of information offered by stakeholders is thus of the utmost importance.

Transparency and materiality

Within the rating practices materiality and transparency are currently hotly debated topics (van den Brink 2001, 2003). Mainstream financial analysts and the growing use of sustainability rating by new indexes fuel the discussion. For instance, mainstream agencies will look at a company's exposure to legal liability and reputation damage. An important condition for this is the nature, timing and the impact of these risks. In other words whether non-financial risks constitute a material threat to performance, be the performance financial or linked to value. In their practice, mainstream (financial) raters (UNEP Finance Initiative, 2003) maintain that non-financial risk should only be assessed when the business case is satisfied and can be quantified as material to the companies default risk or market performance. At this point sustainability rating practices show that *risks can become material*: rating should include those potential risks. Examples, such as the immediate aspects of customer boycotts, green taxes, and the financial impacts created through governance risks such as Enron and Ahold reinforce the case for assessing the financial impacts of these costs. Here, mainstream raters have a point. Few sustainability-rating agencies are clear about the use of qualified information of measuring performance issues. Companies' complain that the issue of 'being first in sustainability A' and not even qualified in sustainability rating B'. There is a lack of agreement on what, how and where to measure. Or to put it another way, which of the issues were *material* to the company.

The issue of *materiality* is becoming important to any type of rating. The concept of materiality was originally derived from the field of financial auditing, and relates to:

> 'Impacts that would cause an informed person to reach a different conclusion or make a different decision about representations shown in financial statements'.[7]

The exclusive financial basis for this definition is, however, now being questioned. Several CS-R organizations have argued that materiality ought to be 'redefined' to include a broader set of stakeholders. In particular, the materiality principle that underpins the AA1000 assurance standard states that:

> 'The reporting organization has included in the public report adequate information about its sus-

tainable performance for its stakeholders to be able to make informed judgments, decisions and actions'.[8]

For raters of CS looking for long-term perspectives 'non-financial' risk is a misnomer: risks of a primarily non-financial nature have, or will have, material business impact. In other words, for benchmark purposes materiality should no longer be limited to financial issues but also embrace informed decisions including social, environmental and economic issues. Non-financial risks and stakeholder input are increasingly becoming relevant to the bottom line and should be assessed in anticipation of their *materiality*. We will argue that non-financial aspects should prove to be material *before* they can be used for assessments of companies' performances.

The example of environmental incidents, damages and sanctions of fines in relation to industry averages is illustrative of the approach taken. Rather than measuring absolute levels of emission or waste the questions is phrased in performance terms relative to peers and assessed in multiple terms. When used as a management tool, the benchmark indicator requires certain amount of inquiry and exploration: what were the fines paid this year? Last year? How did this compare to our major competitors? Who was impacted and what was the nature of the impact? Were stakeholder group information considered to get overall environmental performance?

One of the issues that expert groups, such as auditors, mainstream raters and 'sustainability' rating agencies, feel needed to be addressed is the quality of information available to make assessments. How can environmental and social issues be judged material? There is of course a link between the two definitions of materiality. Issues that are 'material' to key stakeholder groups can very quickly become financially material to a company. For example, the impact and materiality of the growing move towards regulation and re-regulation, evidenced by recent developments such as the Sarbanes-Oxley in the US, the Association of British Insurers guidelines and French listing requirements. For example, current UK listing requirements referring to a disclosure of all 'material business risk' are of particular interest. As 'material business risk' is currently undefined, a definition that includes disclosure material sustainability risks may emerge. In supporting this point a number of rating agencies participated in an initiative for improving quality standards for corporate sustainability rating.[9] There are a number of examples of how bad corporate practice with regard to consumers, the environment or human rights has impacted company financial performance.

Moving forward with benchmarks requires tools that cope with materiality, being derived from stakeholders or financial risks. In our opinion, both stakeholder input and financial implications are qualified material risks. The requirements for any issue to become material are in fact that there is a need for the same set of rules to allow for comparisons *across sectors and transparency*. Transparency should apply for social and environmental criteria to be (or become) *material* for assessments.

Conclusion

In order to manage and measure progress with respect to new corporate sustainability ambition levels, companies need dedicated indicators, which make particularly sense to them. Increasing coherence between dedicated internal and external CS-measurement c.q. screening methods, would significantly improve the availability and the quality of the disclosed information. Both screening and rating agencies – and their clients – as well as the corporations themselves would benefit from standardized but industry specific sustainability benchmark formats. The relationship between key sustainability issues and *transparency* and *materiality* – defined both on financial and stakeholder input – is clearly vital for performance of companies in benchmarks.

In the following section 4 we will derive a new set of topics from rating practises *and* corporate reporting standards with the purpose to develop a benchmark framework. Identifying sustainability issues and understanding how they link with investment value drivers in many ways represents the 'Holy Grail' for this form of rating analysis. However, for stakeholders and those investors looking specifically to exclude companies on the basis of particular activities, which are deemed to be

unethical, this discussion makes less sense. For a broader benchmark approach the issue of *materiality* and *transparency* remains central.

Developing a framework for benchmarking

The ECSF approach triggers organizations in a practical way to perform a critical self-analysis from their own business perspective, taking account of the peer group of companies and stakeholder involvement. For companies, a benchmark reflects its position compared to its peers argues that there may be methodological problems with benchmarking, in particular, to evaluate issues such as values and norms for corporate sustainability (Graafland, 2002). We will countervail these shortcomings essentially by designing an improved tool applying materiality and transparency as key characteristics of reporting practises and corporate rating organisations.

Given the ECSF needs for flexibility to allow companies determine which are their key issues and then focus, benchmark results will offer a tool. Prescriptive guidelines will not be helpful in this process of sustainable business development. The former sections have helped us to identify important sustainability topics and analyses from reporting and rating practices that will help shape best practices to compare companies. The aim of this section is not to produce core performance indicators as such, but develop a framework for a benchmark to set up a stimulating set of topics identifying key characteristics for indicators that reflect best practice.

A stimulating set of benchmark topics

From our earlier analyses of rating practices and reporting practice, we conclude that the main objective of reporting for benchmarking should be improving *comparability*, *materiality* and *transparency*. We offered references that are an indication for the quality of the indicators used for benchmark purposes. First of all, benchmark principles should encourage and stimulate companies to think about their sustainability issues, management and outcomes. As GRI is emerging as a standard use for company's reporting we come to the conclusion that company's sustainability effort should be linked with its business objectives and strategy. Hence, environmental and social effects should be expressed terms being material to business. For benchmark assessments to become relevant for companies and rating organizations, the benchmark must be built that non-financial risks are in fact *material* and *transparent* to business. Enhanced *comparability* is an advantage to the company itself. First of all, the company is able to measure whether it sufficiently improved its responsibility compared with earlier stages. Second, the company and others can compare its sustainability 'results' with others. A benchmark based on generally accepted framework, such as financial accounting – would readily use key performance indicators and than use additional qualified information.

In Table II we present the core of the analysis in this article and contains a framework for assessment of current best practice in benchmark research. This framework is the result of our earlier analyses of reporting and rating practices and additional input of sustainability experts.[10] For the following four key areas of our benchmark we developed a set of sub-demands for transparency and materiality for benchmark indicators and additional best practice elements which were than used for preliminary analyses of the example of two Italian companies.

The table presents a first set of topics against which a company can identify key areas and produce effective examples of best practices for a benchmark. Foremost, our analysis here is based on *transparency* and *materiality* issues that are vital for performance of companies in sustainability benchmarks. The options for best in class practices, clustered in accordance with the benchmark table, are subsequently assessed for their anticipated sustainability merit, sector specific insights, quality of information sources used and comparability. This is in its early stages for sustainability comparisons.

Each benchmark analyze applied according to the above references offers a tool for different companies and industries. For example, in the food industry sustainability patterns of employment will look very different from what they do in the financial market. However, comparisons within certain industries will

TABLE II
Transparency and materiality in benchmarking sustainability performance

Key areas benchmark	Demand for transparency and materiality of benchmark indicators	Best practice elements
Sustainability focus	Sustainability aspects are linked with business objectives, strategy and decision-making	Rationale for selection of company focus
	Environmental risks and opportunities are dealt with	Risk/ opportunities
	Specific value drivers i.e. cost compliance, brand value, human capital are identified	Selected criteria derived business focus
	Sustainability issues effecting ownership and governance structures are dealt with transparently	Alignment of governance structure and focus.
Industry specific	Sustainability assessments access disclose multiple information resources	Access an disclosure multiple information source
	Sustainability issues are selected top-down, include sector specific dimensions and scenario's	Information sector specific and scenario's
	Sector specific indicators are identified addressing key issues – including stakeholder – in a material manner	Key issues express materiality
Information quality	Information resources – including stakeholder information – are clearly identified documented and rigorously dealt with	Identified documents
	Reported sustainability information is robust and driven by internal management systems	Robustness internal information
	Use of cross validated information	Cross checked information
Comparability	Disclosure of data is transparent for management purposes and stakeholder view	Data inclusiveness
	Processes systematically identify sustainability issues, including qualified and quantified potential impacts	Defining usage of quantifiable or qualitative data
	Information is systematically monitored and user friendly presented	Data handling and presentation

be treated on an equal basis. In all cases appropriate measures can be developed to ensure that the company is conducting itself to each benchmark being considered. The benchmark tool provides stress testing of liquidity from various environmental, social and economic impacts.

Some examples might be illustrative for the purpose the find core indicators. Consider the example of environmental incidents, damages and sanctions of fines in relation to industry averages of the approach taken in the chemical sector compared to the financial sector. For the financial industry this might work out very different from a chemical company. We illustrate this difference and applicability of the benchmark table according to environmental impacts.

Environmental impacts

First of all, are environmental incidents important to the industry's core activity and who was impacted and what was the nature of the impact? The rationale of the sustainability issue for the chemical company

might be the industry's (financial) exposure to cost of compliance, environmental fines and operational efficiency. This might well be translated in strategy terms such as lowering environmental risks and benefit from early market entrance of new products. Rather than measuring absolute levels of emission or waste the questions should be phrased in performance terms relative to peers and assessed in multiple terms. Expressed in terms of quality information for management, the benchmark indicator requires certain amount of inquiry and exploration: what were the fines paid this year? Last year? How did this compare to our major competitors? Were stakeholder group information considered to get overall environmental performance?

For the financial industry environmental incidents have a quite different nature and might be questioned in a completely different manner. The sustainability rationale could be to capitalize on environmental trends such as business opportunities and challenges to preserve eco-systems that bear new risks, rather than direct environmental costs. The challenge of the financial organization here might be to improve operating margins and reputation and hiring excellent sustainability expertise in particular industries or develop services related to climate change. Likely, the benchmark indicators for attracting new skilled expertise and number of complaints of environmental pressure groups are more important than reducing environmental costs as such.

Italian food producers

For bottom-up analyses, we use information collected by the Italian ECSF partner *SCS Azioninnova* (Caldelli, 2004). We developed a draft analyses for benchmark indicators derived from the MIS of two Italian companies in the food sector (Table III). Coop Adriatica is a co-operative supermarket chain, while Granarolo is a dairy company. For both companies a list of key performance indicators (KPI) were developed. The KPI's were not derived from the architecture of MIS. The number of MIS indicators and KPI's will be larger than the number of topics in a Benchmark, because:

- a benchmark should contain strategic core topics and value drivers, while a MIS also contains underlying data and data for operational management; and
- topics in a Benchmark should discern the companies' position in the industry. A company should especially look for *value drivers* next to e selection of *performance indicators*. In a MIS, the selection of criteria is more diverse and more open.

Theoretically speaking, a list of MIS-indicators is an intermediate step that must be followed by a selection of strategic indicators to be included in a Benchmark. The process from long list (MIS) to short list (Benchmark) can partly be done by the company itself. In this exercise we are only able to investigate whether the MIS-priorities seem sufficient to elaborate a Benchmark.

Notes on the Benchmark areas

Sustainability focus. Potential information might be available but both companies show little ambition levels. Indicators of both companies are limited. For Coop Adriatica the *social balance,* the *indicator for valuation investments* and the *cooperative structure* offer potential areas for focus and indicators. For Granarolo several indicators are interlinked, e.g. financial *monitoring systems* and *investments in technology,* but it is unclear how they are linked with sustainability value. A consolidation into specific value drivers for both companies can be envisaged.

Sector specific are underdeveloped by Coop Adriatica and Granarolo. Suppliers are passively traced, which is a pity because supermarkets have become increasingly powerful in their product chains. Consumers are restricted to co-operative members.

Information quality

Coop Adriatica shows limited use of multiple resources. Indicators for *Employees* are almost identical for the two companies. Stakeholder information seems absent, Granarolo shows a better balanced mix of suppliers, consumers and quality over the whole production chain. Use of external verified sustainability topics is missing. It must be easy to choose core indicators for the Benchmark.

Comparability. Since we miss reporting documents on sustainability results for Coop Adriatica and Granarolo it is difficult for a comparison to make sense. It is necessary to have further thoughts on this perspective, both by the companies themselves and by the ECSF-researchers.

Our conclusion

Transparent and material information for benchmark purposes is traceable for both Granaloro and Coop Adriatica. Both companies produce sustainability indicators on an *ad hoc* basis and there are no correlation of information sources for sustainability issues. A good potential for sustainability focus for Coop Adriatica is the co-operative structure, for Granaloro the dual company structure of milk producers and sellers offers chances. Some preliminary results for the benchmark tool for both companies are offered in the table below. The examples indicate whether information offered in the MIS for Coop Adriatica and Granaloro is *well developed (++)*, *useful (+)* or *absent* (–) for benchmark purposes, all between brackets.

This exploratory study investigates the methods for benchmarking corporate sustainability in the

TABLE III
Benchmark opportunities for Coop Adriatica and Granarolo recommendation

Key areas Benchmark	Best practice elements	Coop Adriatica	Granarolo
Sustainability focus	Rationale for selection of company focus	Social balance (+) Net global value added (+) Indicators for valuation investments (+)	NA (–) Investments in technology (+) Data of group milk producers/ selling company (+)
	Risk/opportunities	Not indicated (–)	
	Selected criteria derived business focus	Not indicated (–)	
	Alignment of governance structure and focus.	Cooperative of consumer members	Monitoring system finance, leasing, swap options (+)
Industry specific	Access an disclosure multiple information source	Suppliers database (+)	Fresh milk share and operating margin/ results (+)
	Information sector specific and scenario's	Price difference from competitors (+) Suppliers (passive cycle/ retraceable +) Contributions local community (+)	Satisfaction on sale points (+)
	Key issues express materiality	NA	NA
Information quality	Identified documents	Member-consumer specific database and indexes (+)	Milk with traceable resources
	Robustness internal information	Integration of human resources information systems (+)	Suppliers data (SA 8000) (+) Production sites with environmental certificates (+)
	Cross checked information	Net global value (–/+)	Active client cycle (+)
Comparability	Data inclusiveness	Product certification (+) Dialogue with consumers (+)	Product quality control (+)
	Defining usage of quantifiable or qualitative data	Quantified resources consumption ratio's	Energy/water consumption (+)
	Data handling and presentation	Member=consumer specific data (+)	

ECSF content. Based on our findings of corporate sustainability reporting and rating practices the theoretical implications for benchmark corporate sustainability is immature but growing rapidly. A new set of reporting practices and benchmark measures is emerging. Many stakeholder and research groups drive these measures and they are converging on different definitions of what it means for a company to be responsible. The (as yet) undiscovered potential of these benchmarks lies in their application as a management tool to better measure and manage corporate responsibility. As such, the benchmark tool fits the ambitions of the ECSF program.

From the *corporate reporting* standards and practices we learn that GRI is emerging in a reporting format that is used on a worldwide level. As a multi-stakeholder approach GRI offers guidelines companies offering input for many (management) issues that arise from the new corporate surrounding. While GRI helps companies to report on several sustainability levels, to process and communicate information, it hardly helps to integrate these in a meaningful way for companies to (re) define business targets. While the ECSF approach discern different levels of corporate sustainability different 'stages' of sustainability for companies are not dealt with in GRI. GRI will especially be useful for companies that aspire to the *Community/Caring* level of CS/CR. For setting up MIS GRI is well placed, though further 'guidance' for setting up a reporting structure is needed. For companies aiming at *Profit-driven* CS-R, an adapted *application* of GRI seems appropriate. GRI has limited focus (yet) for sector level differences and input, it allows too loose information sources for a variety of stakeholder groups and no focus on business level and value. The information quality levels of indicators are largely used as internal performance tools , rather than as a means of satisfying external benchmark purposes or stakeholder groups. The reporting standards define some minimum information levels and principles but are not *material* for different industry sectors and insufficient assurance instruments are offered for the quality of indicators, including stakeholder.

Rating methodologies and practices offer a powerful tool to companies, in particular, in comparison to peers and to measure and manage progress with respect to new corporate ambition levels. Some ratings offer companies useful insight into organizational culture and mindset and stakeholders perspective of sustainability issues. The generic methodologies used by a number of rating agencies fail to address the unique nature of specific issues in different sectors effectively. Since CS issues are currently identified through internal and *ad hoc* processes, *material* sustainability issues need improvement for companies to be useful.

The benchmark tool can offer a powerful tool if it strategically combines ways of internal management (*material)* cross functional indicators and external (*transparent*) stakeholder engagement identifying key issues for companies. For this benchmark we offered a format tool in this article. For both Coop Adriatica and Granarolo many sustainability indicators are processed through internal ad hoc processes. Some indicators mentioned in the MIS offer potential for the materiality and transparency requests for our benchmark tool.

Notes

[1] M. Moody-Stuart, CEO Royal Shell, Herald Tribune, January 25–26, 2003.

[2] For our purpose we reviewed six major sources, distributed in geographical scope and content and purposes. These are: KPMG's Survey (2002) on Corporate Reporting, Deloitte & Touche 'Reporting Scorecard' (2001), SustainAbility's survey 'Trusts us' (2002) and SIRI World Group mainly for the US. CS-R Network, 2003. ''Material World: The 2003 Benchmark Survey Report'', a research project evaluating global reporting among the 100 largest companies in the world as listed in the Fortune 500. For a good overview of individual sustainability reports see www.corporateregister.com

[3] AA1000s Assurance Standard (2002) is produced by the Institute of Social and Ethical Accountability. Currently, outside the UK the standards are not widely applied.

[4] KPMG Sustainability comments on GRI guidelines, 2002.

[5] CSR Europe, Deloitte, Euronext: *Investing in Responsible Business*. According to the survey, company reports continue to be the main direct source of information, specialist SRI research organizations ranking second and direct dialogue with companies third.

[6] The author of this article participated in a preparing study and the Selection Committee of SustainAbility's forthcoming report ''Values for Money''.

[7] Based on the American Institute of CPAs (AICPA) Statement on Auditing Standards (SAS) No. 47, *Audit Risk and Materiality in Conducting an Audit*.

[8] AA1000 Standard, AccountAbility www.accountability.org.uk/aa1000

[9] See: van den Brink: Voluntary Quality Standards for SRI Research. EU Report, December 2001 and the Voluntary Quality Standard for Corporate Sustainability and Responsibility Research (CS-RR-QS 1.0) EU Paper, November 2003.

[10] Mistra SustainAbility.(London, 2003) Values for Money. Reviewing the quality of SRI Research.

References

Belal, A. B.: 2002, 'Stakeholder Accountability or Stakeholder Management: A Review of UK Firms' Social and Ethical Accounting, Auditing and Reporting (SEAAR) Practices', Corporate Social Responsibility and Environmental Management **9**, 8–25.

CSR Europe, Deloitte, Euronext: 2002, *Investing in Responsible Business*.

de, S. Hoo.: 2002, 'Company Sustainability and Corporate Rating', in T. Brink (ed.), *Guide. Screening and Rating Sustainability. How Companies are Screened and Rated on Sustainability Issues*. (Amsterdam).

Figge, F. and T. Hahn.: 2001, Sustainable Value Added – Measuring Corporate Contribution to Sustainability, *In the 2001 Business Strategy and the Environment Conference Proceedings* (ERP Environment, Shipley), pp. 83–92.

Graafland, J. J. : 2003, *Corporate Social Responsibility of Dutch Companies: Benchmarking and Transparency*, (Tilburg University).

Jane, M.R e.o.: 2003, 'Socially Responsible Investment in the UK – Criteria that are Used to Evaluate Suitability', *Corporate Social Responsibility and Environmental Management* **10**, 1–11.

Key, S.: Toward a now Theory of the Firm: A Critique of Stakeholder Theory. *Management Decisions* **37**(4), 317–328 (p. 326).

KPMG International Survey, 2002, 'The Numbers of Corporate Reports Investigated Over the Last Ten Years are 247 (1993), 323 (1996) and 456 (1999) Respectively', (Amsterdam).

Kolk, A.: (2002), The Evolution of environmental management: from stage models to performance evaluation, *Business Strategy and the Environment* 14–31.

Korhonen J.: 2003, 'Should We Measure Corporate Sustainability?' *Corporate Social Responsibility and Environmental Management* **10**, 25–39.

Laszlo, C.: 2002, 'Measuring and Managing Corporate Sustainability', *Quarterly Journal of the University of Science and Philosophy*.

Morhardt, J. E.: 2002, Scoring Corporate Environmental and Sustainability Reports using GRI 2000, ISO 14031 and Other Criteria', *Corporate Social Responsibility and Environmental Management* **9**, 215–233.

Pensions & Investment Research Consultants Ltd (PIRC).: 2001, *Socially Responsible Investment Service. Guidelines* (London).

SustainAbility.: 2002, *Trust us: The 2002 Global Reporter's Survey of Corporate Sustainability Reporting* (London).

UNEP Finance Initiative.: 2003, *Innovative Financing for Sustainability*.

van den T. W. M. Brink: 2001 and 2003, *Voluntary Quality Standards for SRI research*,

van den T. W. M. Brink: 2002, *Guide. Screening and Rating Sustainability. How companies are screened and rated on sustainability issues* (Amsterdam).

van den T. W. M. Brink: 2003, Analysts' role in valuing companies', in *Investment Pensions Europe* (IPE Magazine. Supplement Responsible Investing London) pp. 20–26.

van der F. Woerd and van der T. W. M. Brink: 2004, Feasibility of a Responsive Business Scorecard – A Pilot Study, *Journal of Business Ethics*.

van M. Marrewijk: 2003, 'Concepts and Definitions of Corporate Sustainability', *Journal of Business Ethics*.

van M. Marrewijk and T. W. Hardjono: 2003, 'European Corporate Sustainability Framework for Managing Complexity and Corporate Transformation', *Journal of Business Ethics*.

van M. Marrewijk and M. Werre: 2003, Multiple Levels of Corporate Sustainability, *Journal of Business Ethics*.

Winter, Jaap e. o: 2002, *A Modern Regulatory Framework for Company Law in Europe* (Brussels).

Wiseman, J.: 1982, 'An Evaluation of Environmental Disclosures Made in Corporate Annual Reports', *Accounting Organizations and Society* **7**, 53–63.

Zingales, F., A. O'Rourke and K. Hockerts: 2002, *Balanced Scorecard and Sustainability. State of the Art Review* (France, Insead-CMER).

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